

IN THE CLAIMS

Please amend Claim 2 as indicated.

Please cancel Claim 1 as indicated.

1. Cancelled

2. (Currently Amended) ~~The cryoablation system of claim 1,~~ A cryoablation system comprising a cryotreatment catheter and a coolant console having:

an inlet line;

a reservoir of phase change coolant;

a supply line for supplying phase change coolant

a first means coupled to the supply line for providing the phase change coolant from the reservoir at elevated pressure along the inlet line to the cryotreatment catheter, wherein the first means conditions temperature of the coolant at elevated pressure in the inlet line;

a second means for recovering the phase change coolant from the cryotreatment catheter and raising its pressure;

said first and second means, a portion of said supply line, and said cryotreatment catheter forming a supply loop external to the reservoir, the supply loop passing through the cryotreatment catheter, the first means being arranged in heat exchange communication with the supply line to condition the phase change coolant before it reaches the catheter along the inlet line so as to achieve effective cooling regimens by controlling phase change coolant provided along the inlet line while continuously recovering and recirculating expended coolant from the second means, and further comprising

a pressure regulator for controlling flow of coolant between the inlet line and the catheter,  
and

a control microprocessor coupled to the pressure regulator and configured for setting the pressure regulator to effect a treatment cycle.

Claims 3-13: (Cancelled)

14. (Previously Presented) A coolant system for operation of a cryotreatment catheter to treat a patient, such system comprising:

a reservoir of phase change fluid;

a compressor for elevating the pressure of said fluid;

at least one heat exchanger for controlling the temperature and phase of the elevated pressure fluid;

a microprocessor-controlled pressure regulator for setting a cryotreatment supply regimen of defined pressure and duration to supply an effective amount of conditioned fluid to a coolant port of the cryotreatment catheter, and

a vacuum recovery assembly connectable to the cryotreatment catheter for continuously drawing expended fluid from the catheter.

Claims 15-16: (Cancelled)